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AB A method for the delivery of bacteria to soil and for providing an enhanced fertilizer product involves treating a fertilizer product with bacteria so that they may be applied in a single step. Desired bacteria (e.g. nitrogen-fixing bacteria, microbes used in soil bioremediation) from a mother stock are subjected to a fermentation process

wherein nutrients are supplied to permit bacterial growth. After the fermentation has proceeded to a point where the bacterial population is 10⁸ to 10¹⁰ per mL, fermn. is stopped, preferably by cooling the ferment very rapidly to <5°. Then, in one embodiment, the ferment is sprayed on a fertilizer particle. The relatively dry fertilizer particle will absorb the bacterial particle and the moisture will be dispersed throughout, and the bacteria will remain in a latent stable state. Alternatively, the ferment may be sprayed on a seed particle or may be applied with a binding agent such as starch or talc. The concentration of the nutritive material may be adjusted so that some nutrient

remains in the ferment when fermn. is stopped. The nutritive material can be selected from milk, animal, and fish byproducts, sugars, etc. One of the advantages of the process is that the microbes are healthy when applied to the fertilizer and have not undergone any other process which could weaken the cells such as by various other forms of drying or the like. The bacterial product was applied successfully on a variety of products including rice, cucumbers, celery, soy, potatoes, evergreens, hay, corn, poinsettia plants, etc. All of these plants exhibited better growth, more leaf, and a more developed root system.

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